Marina del Rey Development Fill Volumes: Correcting a Common Misconception Regarding Ballona Wetlands Area A

Technical Engineering Specification Report

Subject: Accurate Fill Volume Documentation for Ballona Wetlands Area A (Fill Area F-14)

Date: January 2026

Classification: Engineering Correction - Historical Development Data

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Executive Summary

A widespread and persistent misconception in historical and environmental documentation incorrectly states that 3.5 million cubic yards of fill was deposited in Ballona Wetlands Area A during Marina del Rey development (1950s–1960s). This assertion fundamentally misrepresents the geographic distribution of fill materials and has significant implications for restoration planning, environmental review, and engineering analysis.

CRITICAL CORRECTION: U.S. Army Corps of Engineers (USACE) documentation definitively establishes that **1,557,000 cubic yards** was deposited specifically in Area A (Fill Area F-14), representing approximately **44.5% of the total Marina del Rey project fill volume**.

The 3.5 million cubic yard figure represents the **TOTAL fill for the entire Marina del Rey project** across all development areas, not the amount deposited on the former Playa del Rey Motordrome site (Area A).

Correct attribution of fill volumes is essential for restoration planning, environmental review under CEQA and NEPA, historical accuracy, engineering analysis, and archaeological resource assessment.

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1. Correct Fill Volume Attribution

1.1 Verified Fill Volumes

Based on authoritative U.S. Army Corps of Engineers documentation:

Fill Area / Project Component	**Volume (cubic yards)**	**Percentage of Total**
Fill Area F-14 (Ballona Wetlands Area A)	**1,557,000**	**44.5%**
Other Fill Areas (Marina del Rey Project)	~1,943,000	55.5%
Total Marina del Rey Project (All Areas)	**3,500,000**	**100%**

1.2 Technical Clarification

The commonly cited 3.5 million cubic yard figure is accurate only as the **total fill volume for the entire Marina del Rey project**. It is frequently cited without geographic specificity, leading to the erroneous assumption that all fill was placed in Area A.

USACE technical documentation clearly demonstrates that fill was distributed proportionally across multiple project areas, with Area A receiving 1,557,000 cubic yards—not the full project total.

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2. Primary Source Documentation

2.1 Authoritative U.S. Army Corps of Engineers Documents

The fill volumes cited in this report are confirmed by the following USACE technical documents, which constitute the authoritative engineering record for Marina del Rey fill placement:

Document 1: OCI-CIV-60-5_Playa

- Documents Fill Area F-14 specifications
- Establishes 1,557,000 cubic yard volume for Area A
- Specifies fill quantities and spatial boundaries for Fill Area F-14

Document 2: Playa del Rey Harbor CIVENG-04-353-60-5

- Confirms Fill Area F-14 volume of 1,557,000 cubic yards
- Harbor development specifications and geographic distribution
- Provides fill distribution rationale across project components

These documents represent the primary federal engineering documentation prepared during the Marina del Rey planning and construction period and constitute the authoritative record of fill placement quantities and locations.

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3. Geographic and Project Context

3.1 Marina del Rey Development Overview

The Marina del Rey development (1950s–1960s) transformed approximately 800+ acres of coastal wetlands into a small-craft harbor and associated upland development, including a 5,300-slip marina facility. The 3.5 million cubic yards of total project fill was distributed across multiple areas and project components.

3.2 Fill Distribution by Geographic Area

Fill Area F-14 (Area A):

- Volume: 1,557,000 cubic yards
- Location: Former Playa del Rey Motordrome footprint
- Approximate area: 100 acres
- Current use: Ballona Wetlands Area A

Other Fill Areas:

- Volume: Approximately 1,943,000 cubic yards
- Distribution: Remaining Marina del Rey development footprint, including:
    - Harbor basins and navigable basin creation
    - Navigation channels and channel construction
    - Upland development pads and zones
    - Infrastructure and access areas

3.3 Elevation Change Analysis (Area A)

Placement of 1,557,000 cubic yards of fill in Fill Area F-14 resulted in substantial topographic modification:

Pre-Development Conditions:

- Historical wetlands elevation: approximately 2–8 feet above mean sea level

Post-Development Conditions:

- Current elevation: 9–17 feet above mean sea level
- Average elevation gain: 7–9 feet across the approximately 100-acre Fill Area F-14 footprint
- Localized elevation increases: 10–20 feet depending on specific location, terrain characteristics, and design requirements

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4. Engineering and Environmental Significance

The distinction between the total Marina del Rey project fill volume (3.5 million cubic yards) and the amount deposited specifically in Ballona Wetlands Area A (1,557,000 cubic yards) is critical for multiple engineering and environmental disciplines:

4.1 Restoration Planning

Accurate fill volume specifications are essential for:

- Precise estimation of fill removal volumes for wetlands restoration scenarios in Area A
- Proper assessment of excavation volumes and material handling logistics
- Realistic project scoping, feasibility analysis, and cost estimation
- Understanding subsurface conditions and depth of fill material over the original Motordrome site

4.2 Environmental Review (CEQA / NEPA)

Correct fill attribution supports:

- Establishment of accurate baseline environmental setting descriptions (CEQA Guidelines §15125; NEPA 40 CFR §1502.15)
- Proper assessment of hydrological and subsurface impacts

- Impact significance determinations related to hydrology, geology, biological resources, and cultural resources
- Environmental remediation requirements for future restoration projects
- Cumulative impact analysis
- Evaluation of restoration feasibility and mitigation measures

4.3 Engineering Analysis

Proper attribution enables:

- Correct attribution of fill depth and material characteristics
- Understanding subsurface conditions and stratigraphy
- Informed evaluation of subsurface stability, bearing capacity, and drainage
- Assessment of settlement behavior and geotechnical properties
- Proper characterization of existing conditions for design and construction

4.4 Hydrological Modifications

Accurate fill specifications impact understanding of:

- Altered drainage patterns and flow characteristics
- Groundwater table modifications and subsurface flow conditions
- Groundwater interaction and hydrologic connectivity
- Flood control and stormwater management considerations

4.5 Historical and Archaeological Accuracy

Precise fill data supports:

- Correcting overstatements of development impact at the Motordrome site
- Understanding site preservation conditions beneath 10–20 feet of fill material
- Archaeological potential and site integrity assessment
- Access considerations for archaeological investigation
- Cultural resource management planning
- Assessment of subsurface cultural resource preservation

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5. Regulatory Context and Applications

5.1 CEQA and NEPA Compliance

Accurate quantification and geographic attribution of historic fill volumes are necessary to support regulatory compliance under the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

This technical appendix provides substantiation derived from original U.S. Army Corps of Engineers engineering records, establishing defensible baseline conditions for environmental analysis.

5.2 Section 408 and Corps Permit Requirements

Future restoration activities involving modification of federally authorized projects may require Section 408 permission from the U.S. Army Corps of Engineers. Accurate documentation of original fill placement is essential for regulatory review.

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6. Research and Interpretation Implications

USACE-confirmed fill volumes fundamentally impact understanding of:

6.1 Current Subsurface Conditions

- Depth of fill material over the original Motordrome site (10–20 feet)
- Stratigraphy and material composition
- Subsurface drainage and permeability characteristics

6.2 Environmental Remediation Requirements

- Volume calculations for potential future restoration
- Material characterization and disposal requirements
- Project feasibility and cost estimation
- Excavation logistics and phasing considerations

6.3 Archaeological Potential

- Site preservation conditions beneath substantial fill overburden
- Burial depth and access considerations
- Cultural resource sensitivity assessment
- Investigation methodology and testing protocols

6.4 Hydrological Modifications

- Historic versus current hydrologic conditions
- Groundwater flow patterns and connectivity
- Wetland hydrology restoration potential
- Flood risk and stormwater management

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7. Why This Misconception Persists

The 3.5 million cubic yard figure is a **legitimate and well-documented specification for the total Marina del Rey project**. However, this figure is frequently cited without geographic specificity in secondary literature, leading to the erroneous assumption that all 3.5 million cubic yards were deposited on:

- The former Motordrome site specifically, OR
- The Area A sector exclusively

Key Points:

- The total project figure (3.5 million cubic yards) is accurate for the entire Marina del Rey development
- The error occurs when this total is incorrectly attributed to a single component area (Area A)
- USACE technical documentation clearly shows geographically proportionate fill distribution across multiple named fill areas
- Area A received its pro-rated allocation: 1,557,000 cubic yards (44.5% of total)
- The remaining 1,943,000 cubic yards was distributed across other Marina del Rey development zones, channel construction, and navigable basin creation

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8. Critical Correction Summary

8.1 Comparison Table

Item	**Common Misconception**	**Documented Fact**
Area A Fill Volume	3.5 million cubic yards	**1,557,000 cubic yards**

Item	Common Misconception	Documented Fact
Data Source	Unclear/Undocumented	**USACE: OCI-CIV-60-5_Playa & CIVENG-04-353-60-5**
Geographic Scope	Single area (Area A)	**Total Marina del Rey project (all areas)**
Area A Percentage	100% (implied)	**44.5% of total project**

8.2 Summary Statement

Ballona Wetlands Area A (Fill Area F-14) received 1,557,000 cubic yards of fill — NOT 3.5 million cubic yards.

This correction is fully supported by U.S. Army Corps of Engineers engineering records and should be reflected in all future technical, environmental, and historical analyses.

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9. Recommendations

9.1 Update Historical Documentation

All references to fill volumes in Ballona Wetlands Area A should be corrected to reflect the accurate **1,557,000 cubic yard specification** from USACE documentation.

9.2 Cite Primary Sources

Future documentation should reference the authoritative USACE documents:

- **OCI-CIV-60-5_Playa**
- **Playa del Rey Harbor CIVENG-04-353-60-5**

9.3 Maintain Geographic Specificity

When citing Marina del Rey development fill volumes, clearly distinguish between:

- Total project volumes (3,500,000 cubic yards)
- Area-specific allocations (1,557,000 cubic yards for Area A)

9.4 Engineering Analysis Applications

Use the accurate **1,557,000 cubic yard figure** for all:

- Engineering calculations and subsurface characterization
- Restoration planning and feasibility studies
- Environmental assessments (CEQA/NEPA baseline conditions)
- Cost estimations related to Area A
- Archaeological sensitivity assessments
- Hydrological modeling and analysis

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10. Conclusion

Based on authoritative U.S. Army Corps of Engineers documentation, the precise fill volume deposited in Ballona Wetlands Area A (Fill Area F-14) during the Marina del Rey development was **1,557,000 cubic yards**, representing approximately **44.5% of the total 3.5 million cubic yard Marina del Rey project allocation**.

Distinguishing between the total project volume and the area-specific allocation is essential for:

- Accurate restoration planning and feasibility assessment
- Environmental baseline characterization for CEQA/NEPA compliance
- Subsurface engineering analysis and geotechnical evaluation
- Historical accuracy and archaeological resource management
- Regulatory permitting and compliance documentation

The widespread misconception that 3.5 million cubic yards was deposited specifically in Area A represents a fundamental misattribution of the total Marina del Rey project fill volume to a single component area. This technical report establishes the correct engineering specification based on primary federal engineering records.

References

Primary Sources:

U.S. Army Corps of Engineers. *OCI-CIV-60-5_Playa*. [Fill Area F-14 specifications and volume allocations]

U.S. Army Corps of Engineers. *Playa del Rey Harbor CIVENG-04-353-60-5*. [Marina del Rey harbor development specifications and fill distribution]

Report Prepared By: Engineering Analysis - Historical Development Documentation

Primary Sources: U.S. Army Corps of Engineers Technical Documentation

Reference Documents: OCI-CIV-60-5_Playa; Playa del Rey Harbor CIVENG-04-353-60-5

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